



Outdoor Workbook 2004

SILVA
Get out there™



To additionally secure accurate bearings the Nomad has a magnetic disturbance sensor, which will warn the user if the Nomad is affected by external magnetic disturbance that can affect the compass accuracy.

The Nomad comes with two lanyards – one for use around the wrist and one for use around the neck.

The perfect high-tech companion for navigation in the great outdoors. The Nomad is a hand held electronic compass, which suits backpackers, hikers, campers and other outdoor people. The Nomad guides you with arrows in the correct direction and will even show you the right direction back.



Nomad is an easy to use hand held electronic compass for setting and following bearings in the outdoors. Set and store your wished direction of travel and the Nomad will guide you with an arrow to point in the correct direction and facilitate your navigation towards the target. When storing a direction of travel the Nomad will automatically store a back bearing to facilitate your navigation back to your starting position.

When no bearing is stored Nomad will show the true compass course as well as cardinal points (N, NE etc.)

Nomad has a backlit LCD to enable navigation in darkness and is of course equipped with a bubble level for horizontal adjustment so that accurate bearings can be obtained. Local magnetic declination can be adjusted up to $\pm 69^\circ$ to show true compass course virtually anywhere in the world.

Specification

Accuracy: ± 5 degrees
 Resolution: 1 degree
 Update Rate: 1 time / second (during use)
 Battery Type: Qty. 1 - CR2032, 3V Lithium
 Typical Battery Life: 500 hours (backlight off) 30 hours (backlight on)
 Operating Temperature Range: -18 to $+60^\circ\text{C}$
 Storage Temperature Range: -23 to $+71^\circ\text{C}$
 Dimensions: 89 x 61 x 23 mm
 Weight (excluding battery): 113 g
 Display Size: 38 mm
 Water Resistant

Art.no. 46000



This series is created to meet the demands from Boy Scouts/youth organisations, hikers to use on shorter day trips and schools. Patented red/black north/south lines in the capsule (Field 7 and 26) and a north indicator on the compass needle are standard on the Field series.



SILVA FIELD 11

The perfect forest and sailing companion for all ages. Shows the main directions with the cardinal points in the capsule. Built-in safety whistle. Art. No. 35334-2001



SILVA FIELD 26

A full-function mirror-sighting compass at a very attractive price-point! Large sighting-mirror and mm/inch map measuring scales. Lightweight and compact design. Perfect for land and sea navigation where accurate sightings are needed. It floats! Art. No. 35134



SILVA FIELD 7

Probably the worlds best selling compass model! The small size and the rounded back of the base plate makes this compass an ideal youth/beginners compass for all kind of land navigation. Map measuring scales mm, 1:50k and 1:25k. Declination scale inside the capsule. Art. No. 34855



SILVA VOYAGER 9020

A compact base plate compass with mm and inch measuring scales. Also equipped with an inclination scale for determination of vertical angles.

Art. No. 36578-5001

Who needs a compass more than a globetrotter? The Voyager series features a multi-zone balanced needle that will work regardless where in the world you are. An optic yellow base plate with different map measuring scales as well as a magnetic declination adjustment are standard on all VOYAGER compasses.



SILVA VOYAGER 8010

A base plate compass with a traditional type of base plate. Built in magnifier for detailed map reading. Declination adjustment facility. Map measuring scales 1:250k, 1:25k, 1:24k, 1:50k, 1:63.36k as well as mm and inch.

Art. No. 36580-5011



SILVA VOYAGER 8040

This is the sighting model in the VOYAGER series. Equipped with a gun-sight for accurate sighting of bearings. Lid with sighting mirror and thermometer. Built-in clinometer needle for accurate measurement of vertical angles/slopes. Magnetic declination chart on top of the lid.

Art. No. 36582-5001



A revolution in compass technology! A magnetized disc and a reference circle in the bottom of the capsule, replacing the traditional compass needle and are which creates the ECLIPSE System. The ECLIPSE System gives improved accuracy in the readings. All ECLIPSE compasses are adjustable for magnetic declination (variation) and include a magnified graduation ring for 1/2-degree readings.



SILVA ECLIPSE 96 GPS

The perfect choice for the GPS-owner. Never trust the GPS alone as your navigation aid - always remember to bring a compass. The ECLIPSE 96 GPS includes international romer scales (1:24k, 1:25k, 1:50k, 1:62,5k, 1:63,36k) for plotting exact locations on the map with UTM-co-ordinates (or similar). Delivered with a Lat/Lon / UTM template for plotting locations on maps with Lat/Lon system. Art.No. 36502-0001



SILVA ECLIPSE 97 GRIP

A prize-winning design, base plate compass. Ergonomically shaped base plate with a smooth rubber grip and a lanyard complete with a click-in safety whistle! Delivered complete with a clip-on attachment (clips on to belt, map etc) Art. No. 36353-1001



SILVA ECLIPSE 99 PRO

The Flagship among the ECLIPSE compasses. A one-handed operation mirror-sighting compass. Has built-in clinometer for measurement of vertical angles/slopes. Base plate with magnifier and a set of InfoCards with Survival info, Instructions for use, map measuring scales, conversion tables etc are included in the rubber "shoe". This is not just a compass - it is a complete navigation system!

New Circle Orienting system - simply, outline the circled red "N" and read bearing to 1/2°.

Adjustable magnetic declination.

One hand use. Prismatic mirror sighting system (laser cut mirror) for accurate bearings.

Dial Hinge Operation - Sight Cover opens to three predetermined positions -45°, 90° & 120°.

Sight Cover opens independent of cover. Cover opens 120° for hinge inclination measurement.

Baseplate with a magnifying lens and provided with the following scales: mm, 1:25.000 and 1:50.000.

Ergonomic rubber shoe cover holding.
Art. No. 36351-4001





SILVA EXPEDITION 4

The "full-size" base plate compass for experienced navigators. Used by different defense forces around the world. 1:25k, 1:50k, 1:63.36k, mm and inch map measuring scales. Luminous points for navigation in the dark.
Art. No. 35692-1011

Compasses for really serious navigators and professionals. Specially designed to allow for working on map. The base plates have different scales and a built-in magnifier. Naturally they are equipped with luminous points for navigation in the dark.



SILVA EXPEDITION 25

The mirror-sighting compass with "all" the features required by professional users such as geologists, engineers, defense forces etc. Direct access battery illumination and a bubble level for accurate horizontal adjustment. Clinometer and declination adjuster.

Art. No. 35942-6041



SILVA EXPEDITION 54

Is considered by many as top of the Silva range of traditional base plate designed compasses. It has a precision sighting system, which allows for bearings accurate to ± 0.5 degrees to be taken! Add the same map measuring scales and silicon grip feet, as on RANGER 4, and you have a top-of-the-range compass for the advanced user!
Art. No. 35852-1011



This series is specially suited for more experienced users such as backpackers, mountaineers, hunters, fishermen etc. All RANGER compasses are equipped with; the patented red/black north/south lines in the capsule for quick and correct course setting, north indicator on the red end of the compass needle and luminous markings for navigation in the dark



SILVA RANGER 3

A classic base plate compass also used by defense forces around the world. Built in magnifier for detailed map reading. Luminous stripe on the needle. Map measuring scales mm, 1:25k and 1:50k

Art. No. 34820



SILVA RANGER 27

Small in the pocket but big in the outdoors! RANGER 27 has everything you need from a mirror-sighting compass and more! Built-in sun-watch and a pin-on jacket function for hands-free use. The hunters favorite compass! The perfect spare compass for every navigator.
Art. No. 34952



SILVA RANGER 15

Probably the most used compass on expeditions all over the world! RANGER 15 has been on the top of Mount Everest as well as in rain-soaked tropical jungles. It is a partner that can be trusted in the worst conditions! Large sighting mirror, rubber feet that grip the map when working to and from the map, and map measuring scales mm/inch 1:25k and 1:50k. Model RANGER 15TDCL has declination adjustment and a clinometer for measuring vertical angles.

Art. No. 34896 RANGER 15 T

Art. No. 34917 RANGER 15 TDCL

binoculars

eterna compact



- Frame design in metal (aluminum)
- Rubber coated
- Waterproof, nitrogen gas filled
- BaK-4 optics
- Emerald Fire (anti reflex coating)
- Extended eye relief for those who wear glasses
- Opti-Visor rotating eyepieces/ocular covers (pat pend)
- Front-edge sight-balance adjustment
- BinoGlove™ interactive binocular casing in neoprene (pat pend)

These binoculars are designed to withstand really hard use. With an aluminum frame, rubber coating and roof prism they are rugged, compact and lightweight.

Extendable eye relief and adjustable eyepieces make ETERNA PLUS and COMPACT equally well suited for use with or without eyeglasses.

Opti-Visor™ is our unique ocular lens shade, which can be rotated 360° thus enabling you to shut out disturbing side-light and reflections of the sun. Pat pend.

Emerald Fire™ lens coating eliminates almost all of the harmful UV- and IR-radiation.

Bak-4 Prism and multi-layer anti-reflection coating gives increased light throughput and an amazingly sharp and clear image. A wide field of view and close-up focus limit of approx. 2 metres make ETERNA PLUS and COMPACT binoculars for unlimited use, from butterfly watching to observing the moon.

ETERNATM PLUS and COMPACT are nitrogen filled and therefore fully water, dust and moisture proof.

Bino-Glove™ patented carrying case in neoprene for situations where the environment is harsh and challenging. The binoculars can be used without having to remove them from the case.

An extra wide comfortable neck strap in neoprene, is of course standard.



SILVA ETERNA COMPACT	8x25	10x25
Magnification	8	10
Objective diam.	25mm	25mm
Exit pupil	3.1mm	2.5mm
Eye relief	18.5mm	17mm
Prism	Bak-4	Bak-4
Anti-reflection coating	Emerald Fire	Emerald Fire
Field of view @1000 m	90 m	87 m
Weight, g.	350 g	350 g
Size	121x95x45 mm	121x95x45 mm

Art. no. 810825 SILVA ETERNA COMPACT 8x25

Art. no. 811025 SILVA ETERNA COMPACT 10x25



SILVA Lite-Tech Compact

Supple and compact binoculars that are perfect for hiking, sports and outdoor use with good optical performance. Roof prism design (Bak-4 optics), waterproof (nitrogen gas filled) and thus also completely moisture and dust proof. Emerald Fire™ anti-reflection coated lenses that eliminates 99.6% of all harmful UV- and IR-radiation. Solid rubber coated design.

- Solid rubber coated design
- Waterproof, nitrogen gas filled
- Emerald Fire anti reflection coating.
- 2 years limited warranty
- Comes fully equipped with carrying case and comfortable neck strap in neoprene

LITE-TECH COMPACT	8x25	10x25
Magnification	8	10
Objective diam.	25mm	25mm
Exit pupil	3.1mm	2.5mm
Eye relief	9.8mm	8.8mm
Prism	BaK-4	BaK-4
Waterproof, gas filled	Yes	Yes
Anti-reflection coating	Emerald Fire	Emerald Fire
Field of view @ 1000 m	143m	103m
Weight	404 g	404 g
Size	107x120x40mm	107x120x40mm

Art.No. 850825 SILVA LITE-TECH COMPACT 8x25

Art.No. 851025 SILVA LITE-TECH COMPACT 10x25



Lite-Tech Vision

Lite-Tech Vision is the latest addition in the Silva binocular line. It is designed for leisure use and provides a good optical quality in its rugged metal frame construction. It is well suited for outdoor people, sports, travellers and hikers.

Lite-Tech Vision is available in two models 7x24 and 9x24.

Lite-Tech Vision uses Bk-7 optics and it has a good optical performance for a binocular in this price range. Lite-Tech Vision is built upon a metal frame and comes complete with a wide neck strap and a carrying case.

LITE-TECH™ VISION	7x24	9x24
Prism System	Roof	Roof
Magnification	7	9
Objective Diameter	24 mm	24 mm
Exit pupil	4.0 mm	2.7 mm
Eye Relief	9.8 mm	8.8 mm
Prism	Bk-7	Bk-7
Waterproof, Nitrogen filled	No	No
Coating	Fully coated	Fully coated
Field of View @ 1000 m	130 m	96 m
Weight	530g	530g

Art.No. 850724 SILVA LITE-TECH VISION 7x24

Art.No. 850924 SILVA LITE-TECH VISION 9x24



SILVA pocket 10x25

SILVA Pocket

The compact format and the low weight make POCKET binoculars that you can always take with you! Perfect as extra binoculars in the boat, the car, the cottage etc.

- 8x or 10x magnification
- Anti-reflection coating
- Solid rubber coated design
- 2 years limited warranty
- Comes fully equipped with carrying case and neck strap

POCKET	8x21	10x25
Magnification	8	10
Objective diam.	21mm	25mm
Exit pupil	2.6mm	2.5mm
Eye relief	9mm	9mm
Prism	Bk-7	Bk-7
Waterproof, nitrogen gas filled	No	No
Anti-reflection coating	Yes	Yes
Field of view @1000 m	131m	100m
Weight	176 g	202 g
Size	90x60x38 mm	115x65x40 mm

Art. no. 870825 SILVA POCKET 8x21

Art. no. 871025 SILVA POCKET 10x25



SILVA pocket 8x21



Headlamp M4

A headlamp is an incredible partner when doing different kind of work in darkness. No matter where you are looking you instantly have the light in the right direction.

The M4 is a compact LED headlamp for close range use. The M4 is specially suited for advanced outdoor users, hikers, jogging, climbing, search and rescue teams, Multi-Sport teams, different professional users and all other users that require a very long discharge time for the short range use and put low weight as a high priority.

The rugged construction of the rubberised headlamp body and the performance of the 3 High Performance LEDs that gives a discharge time of approx 150 hours makes the M4 an excellent choice.

Unique selling points are water resistant, tiltable reflector, low weight (only 51g), 4 different light modes, comes complete with batteries and a mesh bag as a protection when stored in the backpack etc.

Specifications

LEDs: 3 High Performance LED (white light)
Range: 20 metres
Battery: 3 AAA, included
Discharge time: Approx. 150 hours
Misc: Rugged and water resistant, comes with a mesh bag and batteries

Art. No. 57000



Headlamp M1

A headlamp is an incredible partner when doing different kind of work in darkness. No matter where you are looking you instantly have the light in the right direction.

The M1 is a combination of a high power Halogen bulb for long range use and high power LEDs for close range use. The M1 is specially suited for advanced outdoor users, search and rescue teams, Multi-Sport teams, different professional users and all other users that require a very long discharge time for the short range use but also need to use a great light on a longer range.

The rugged construction of the rubberised headlamp body and the performance of both the 4 Watt Halogen and the 3 pcs LEDs that gives a discharge time of approx 100 hours makes the M1 an excellent choice for the high-end user. Since the battery is integrated in the headlamp no external battery-belts etc needs to be used.

The M1 comes complete with a rechargeable Ni-MH battery integrated in the headset and a charger.

Specifications

Bulb:	1 pc 4 Watt halogen bulb
LEDs:	3 pcs High power LED (white light)
Range:	Halogen 75 meters, LEDs 15 meters
Battery:	4.8 Volt, 1.6 Ah rechargeable Ni-MH battery
Discharge time:	Approx. 1 hours 45 min (Halogen), Approx. 100 hours (LED)
Charger:	Charging time approx. 16 hours
Misc:	Rugged and water-proof IP 56

Art. No. 57003



Headlamp M2

A headlamp is an incredible partner when doing different kind of work in darkness. No matter where you are looking you instantly have the light in the right direction.

The M2 is a combination of a Halogen bulb for long range use and high power LEDs for close range use. The M2 is specially suited for all kinds of outdoor users, search and rescue teams, different professional users and all other users that require a very long discharge time for the short range use but also need to use a stronger light on a longer range.

The rugged construction of the rubberised headlamp body and the performance of both the 2.4 Watt Halogen and the 3 pcs LEDs that gives a discharge time of approx. 150 hours makes the M2 an excellent choice for all kinds of users. Since the battery-case is integrated in the headlamp no external battery-belts etc needs to be used.

The M2 is to be used with 4 pcs Alkaline (or rechargeable) LR6 (AA) batteries.

Specifications

Bulb:	1 pc 2.4 Watt halogen bulb
LEDs:	3 pcs High power LED (white light)
Range:	Halogen 50 meters, LEDs 15 meters
Battery:	4 pcs LR6 (AA) Alkaline (or rechargeable) batteries (not included)
Discharge time:	Approx. 2 hours 30 min (Halogen), Approx. 150 hours (LED)
Misc:	Rugged and water-resistant construction IP 56

Art.No. 57002

headlamps

M3/Visi-Lite



Headlamp M3

A headlamp is an incredible partner when doing different kind of work in darkness. No matter where you are looking you instantly have the light in the right direction.

The M3 is a good choice for the more occasional headlamp user. It is equipped with a Krypton bulb, which gives a good floodlight for medium range use. The M3 is specially suited for all kinds of outdoor users such as hikers, campers, fishers etc.

The rugged construction of the rubberised headlamp body and the performance of the 2.4 Watt Krypton bulb makes the M3 an excellent choice for all kinds of users. Since the battery-case is integrated in the headlamp no external battery-belts etc needs to be used.

The M3 is to be used with 4 pcs Alkaline (or rechargeable) LR6 (AA) batteries.

Specifications

Bulb: 1 pc 2.4 Watt Krypton bulb
Range: 50 meters
Battery: 4 pcs LR6 (AA) Alkaline (or rechargeable) batteries (not included)
Discharge time: Approx. 2 hours 30 min
Misc: Rugged and water-proof IP 56

Art. No. 57001



Visi-Lite

This is the partner that you can always bring with you on your key ring in case of a sudden need of light.

Remember that time the power went down and you needed to check the fuses or when your car stopped and you needed to check the engine when it was pitch black outside?

That is when you should have carried your Visi-Lite! It is also great in the outdoors when trying to find something in your tent etc.

The Visi-Lite is available in either blue or white light. It snaps easily to a key ring and the light lasts for hundreds of hours. Its bright light is visible from hundreds of meters and can also be used as a signalling light.

Specifications

LED: Super bright blue or white LED
Batteries: 2 pcs CR 2016 Lithium (included)

Art. No. 57040 Visi-Lite White

Art. No. 57041 Visi-Lite Blue

solar power

PORTABLE SOLAR POWER

Environmental friendly and very convenient when in the outdoors for a long time. Now you are able to charge the AA-batteries for your GPS, Headlamp, Pocket radio, two-way radio from sunlight. With the PowerPak model you can also charge your PDA, cellular phone etc from the 12 Volt socket.



Batterysaver PowerPak

The multi-function portable solar power device. Charges 1 to 4 AA Ni-MH (or Ni-Cad) batteries. The PowerPak can also power small electronic devices thanks to the multi-adapter cable.

Cig adapter socket for use of standard 12 Volt charging devices (cell phone chargers etc).

Direct charging of the SILVA M1 headlamp.

Maintenance of vehicle batteries etc.

Power output max 140 mA (6 Volt) at full sunlight.

Size: 24x17,5x4,5 cm

Weight: 800 g

Art. No. 57121

headlamps

high power



SILVA 478

A full size (90 mm diam. reflector) halogen headlamp powered with a 10 and 20W halogen bulb. Extremely light-weight construction with a neoprene headband for a perfect fit. Can easily be mounted on a helmet with the adhesive Velcro pads included. Combine this model with the 9.0Ah or 4.5Ah rechargeable battery and charging set. This is the choice for the all-round user who wants to use the headlamp both with and without helmet. Weight: 160g. Art. No. 57058-20



SILVA 480

A full size halogen headlamp powered with a 10 and 20W halogen bulb. Extremely light-weight construction with a perfect fit. Combine this model with the 9.0Ah or 4.5Ah rechargeable battery and charging set. Weight: 160g. Art. No. 57058-20



SILVA 471

A full size halogen headlamp in classic design, powered with a 10 and 20W halogen bulb. Quick adjustable headset - just turn the knob on the back and it fits! Combine this model with either the 9.0Ah or 4.5Ah rechargeable battery and charging set. Weight: 220g. Art. No. 57055-20



SILVA MICA

A full size halogen headlamp powered with a 10 and 20W halogen bulb. Light-weight construction and perfect fit thanks to the ingeniously designed headset. Combine this model with either the 9.0Ah or 4.5Ah rechargeable battery and charging set. Weight: 160g. Art. No. 57059-20



Battery 4.5 Ah

Re-chargeable NiMH-battery 4.5 Ah. Compact and ultra light weight construction.

- Size: 86x68x17mm.
 - Weight: 320g
 - Charge time: 16 h
- Discharge time 10W: 2h 40min, 20W: 1h 20min
Art. No. 57102-40



Battery 9.0 Ah

Re-chargeable NiMH-battery 9.0 Ah. 10 cells. Use the Battery Case ClicOn for easy carrying the battery. The choice for the longest possible discharge time.

- Size: 86x68x38mm.
 - Weight: 630g
 - Charge time: 16 h
- Discharge time 10W: 5h 20min, 20W: 2h 40min
Art. No. 57103-90 or 57104-90 (flat-pack)

battery information

Discharge times NiMH batteries

Art.Nr	Ah	Charge time	6W	10W	20W	Weight
57103-90	9,0	16h	9h	5h	2h	630g
				20min	40min	
57102-45	4,5	16h	4h	2h	1h	310g
			30min	40min	20min	

Above discharge times are approximate and can vary depending on the condition of the battery, the temperature in the surroundings etc.

Size

9,0 Ah 89x68x36 mm Art.no.57103-90

9,0 Ah 178x68x18 mm Art.no.57104-90

4,5 Ah 89x68x18 mm Art.no.57102-45

Charging:

Each battery must be connected to the correct capacity charger. This will ensure a maximum charge, over the 16 hours. Using an incorrect charger can damage the battery!

Important information regarding the handling and care of NiMH-batteries and mains adaptors which are supplied together with headlamps from SILVA:

- Charge according to manufacturers recommendation. Do not over-charge!
- No need to discharge the batteries before re-charging.
- If the battery has been used for a short time and you want to be sure that you have maximum battery life next time, put the battery on charge. When the battery gets warm (maybe after 3-4 hours) the cells are fully charged and the charging should be stopped.
- Never discharge the NiMH batteries completely! It may harm the battery!
- A fully charged battery should read 1.20V/cell or greater.
- If the battery loses capacity fast, a bad cell is probably the cause.

- Do not change cells in the battery with new ones. The consequence of this is that the worst cell will decide the capacity of the battery. Battery capacity is not higher than the weakest cell.

- Batteries may be stored charged or discharged (not completely discharged).

- Batteries should be stored to prevent accidental shorting.

- Check the wires in the connector regularly - the pins should be fixed in the housing.

- Do not pull the cables when dismantling the connectors. Pull the connector itself.

- Regularly check that the pins make contact. If they fit loosely, bad charging/discharging may be the consequence.

- Do not lift the battery with the connector. The pins can fall out causing the battery to start.

- Check regularly that the wires are in good condition, no wear. Remember the correct connection.

- Check that no wear has occurred on the plastic case.

- Even if the voltage is low on NiMH-batteries, the shorting current is high and can cause burns. Regularly check therefore the battery condition. Specially if it is exposed to rough treatment. The battery has a built-in poly-switch which automatically shall cut the power at a shortcut. Note that the battery can be damaged even if this safety component normally will prevent the battery from burns.

If you act on the advice given above, you will have a battery with a long life and no accidents will occur due to short circuits of the battery.

multi-navigator

Not just another GPS

With the Multi-Navigator™ we bring the skill of navigation to its leading edge. When you are "out there" you could well find that the difference between the Multi-Navigator™ and an "ordinary GPS", will be the difference between finding your way or being lost. The Multi-Navigator™ is built for you to rely on and works in deserts, mountains, arctic conditions, forests and on the moors and works equally well at high altitude as well as at sea level.

"He who knows more, needs to carry less" - The SILVA Multi-Navigator™.



multi-navigator



The One Button GPS - Finding your way back has never been easier!

Tests have proved that the main thing people want to use a satellite navigator for, is finding their way back to the location they started from - why make it complicated!

Press a button once when the Multi-Navigator is switched on and the current position will be automatically stored and displayed as your target! This is the only thing you have to do, to find your way back home. It is EASY, QUICK and practically UNFORGETTABLE!

IntelliCompass - Intelligent Electronic Compass Navigation

The Multi-Navigator has a built-in electronic compass which, just like a traditional compass, detects the Earth's magnetic field and works whether you are moving or stationary! A great benefit, is that it uses very little power, which means you will be able to navigate for weeks* using the same batteries! In addition this it will automatically compensate for the local magnetic declination and show you the true compass direction so that you can concentrate on navigating!

Altimeter

The ordinary GPS can only detect your altitude with an accuracy of +/- 30 metres. The Multi-Navigator can, thanks to the built-in altimeter, detect differences in altitude to within one meter (3 feet)! This is a valuable navigation aid when in the mountains.

Weather Forecast - Barometer

When in the great outdoors, it is not only a question of WHERE to go that is important. Knowing WHEN to go can be just as important. The Multi-Navigator will also help you by detecting the weather trend and gives you a weather forecast. In addition, it gives you the barometric pressure trend over the previous 24 hours.

Built to perform - in all conditions including tough ones

What is the use of trying to use a GPS during a mountain search and rescue mission, if it does not work in low temperatures, especially when taking wind chill into account? Why bring a non-waterproof GPS into the rain soaked forest? The Multi-NavigatorTM does not only give you the necessary information you need to perform in tough conditions - it is also built to perform when you need it most. Features such as a wide temperature range LCD, waterproof case, power saving electronic compass, high contrast LCD/keyboard illumination and a shock absorbing pouch etc, makes this a powerful, high performance navigation instrument.

Unique interactive neoprene pouch

The Multi-NavigatorTM is delivered with an ingeniously designed interactive neoprene pouch, which can be carried on the belt, rucksack, strap etc.. In a second it can be transformed from a carrying pouch into a smart protective cover, with a window for the buttons and the LCD, so you can use the Multi-NavigatorTM without having to take it out!

Art. No. 21802-901 Multi-Navigator

Art. No. 21802-9 Multi-Navigator

multi-navigator



Global Map Planner

This PC software works as a planning tool before your trip - just click on the digital map and download the waypoints and routes to your Multi-Navigator and you are ready to go! After the trip - upload the stored data from the Multi-Navigator to the PC and you will have an on-map display of your trip. Can also be used for real time navigation - follow your position on the map on your portable computer. The Global Map Planner comes with a world map and also gives you the possibility to import different digital maps as well as scanning in your own paper maps.
Art. No. 21931-1

Data cable

The same cable as the one that comes with Global Map Planner but sold separately. To be used with other Multi-Navigator compatible softwares.
Art. No. 21946

External battery pack cable

This cable is for powering the Multi-Navigator from a SILVA high-power rechargeable headlamp battery. (4 Ah, 7Ah or 8Ah)
Art. No. 21120



Vehicle Kit

Mounting bracket and a 12V-power cable with cigarette lighter adapter for use in a 4WD, ATV, snowmobile, balloon etc.
Art. No. 21930-1



Differential GPS interface

Cable for connection to a DGPS receiver for increased accuracy of position.
Art. No. 21932-1

multi-navigator

Technical specifications

Navigation

One-button-GPS: Quick and easy back-tracking to start position with only one button press with the Multi Navigator TM switched on. Waypoints: 1000 Waypoints with 8-character name - stored complete with the extremely accurate altitudes. Routes: 10 reversible routes, each with up to 100 waypoints. Track logging: Automatically records your trip and stores it for display on your GlobalMapPlanner (accessory software). Map datums: More than 100 local map datums. Grid systems: More than 10 including UTM, MGRS, plus Swiss, Australian, New Zealand, Swedish and UK grids.

GPS-Receiver

Receiver type: 12-channel parallel, for continuous tracking of 12 satellites maximum. Position update rate: 1 per second when in continuous GPS navigation mode. Time to first fix: Frozen (first time in use) - approx. 1-2 min, Cold (has not been navigating the last 4 hours) - approx. 45 seconds Warm (has been navigating within the last 4 hours) - approx. 10 seconds Reacquisition (occasionally lost satellite signal reception) - approx. 0,1 second Differential GPS: Ready for differential corrections. (RTCM-SC104) Antenna: Built-in patch antenna. Accuracy: 15 metres RMS. 1-5 metres RMS with DGPS*.

*=Note that different DGPS services are available in different countries, which is why the accuracy can vary.

Electronic compass

IntelliCompass: Compensates for Earth's local magnetic declination at geographic position and shows true compass course. Magnipointer: Quick "point and press" waypoint creator. Accuracy: Better than 3 degrees provided it is autodeviated and held horizontal. (Compass alignment offset can be adjusted as a part of the magnetic declination setting) Resolution: 1 degree.

Altimeter

Altitude: -700 m to +9200 m Memory: Maximum altitude visited. Calibration: By either altitude or QNH (QuasiNonHydrostatic - reduced air pressure at sea level). Accuracy: 3 meter provided properly calibrated. Resolution: 1 meter

Weather station - Barometer

Forecast: Shows forecast for 12 hours ahead as: Sunny, Partly cloudy, Cloudy, Rainy and Storm Warning. Barometric pressure range: 300-1100 hPa Barometric history: Pressure changes over the last 24 hours. Units: hPa, mbar, inHg and mmHg. Accuracy: +/- 1.5 hPa

Data I/O

- NMEA 0183 Out
- Nexus PP
- RTCM-SC104 DGPS Input

Miscellaneous

Internal power: 2 pcs AA batteries (not included) External power: 6-28 VDC Battery life****: Typical compass navigation - Up to 60 days** Typical compass/GPS navigation - Up to 100 hours*** Continuous GPS navigation - Up to 10 hours Languages: More than 7 (including English, French, German, Spanish, Portuguese, Italian, Dutch and Swedish) Operating temperature range: -25° to +70 °C Flash memory: Upgradeable software. EMC Standards: EN 50 081-1 (1992) Generic emission standard EN 50 082-1 (1997) Generic immunity standard

**=15 seconds every 5th minute. Continuous barometer logging.

***= GPS position update every 30th minute, compass 15 seconds every 5th minute. Continuous barometer logging.

****=Remember that alkaline batteries lose a significant amount of energy when used in low temperatures. If the Multi-Navigator TM is to be used in freezing conditions we recommend Lithium batteries. Please also note that the GPS Receiver will do its utmost to stay in navigation in harsh conditions where signal level is low. This will consume a bit more power than in open areas.

Dimensions etc.

Size: 170x61x30 mm Weight: 254 g (including batteries) Display: 24 Character High-contrast, back lighted LCD. Keyboard: 9 buttons, back lighted.

Standard accessories

- Users manual
- Wrist strap
- Interactive neoprene carrying case

Warranty

2-years (see warranty card)



The Sports Altimeter SILVA ALTA is a precision altimeter developed for you who are a multisport-competitor, skier, alpinist, hiker, bicyclist or athlete and want to measure changes in altitude with a resolution as accurate as 1 meter (3 feet).

When developing the SILVA ALTA big emphasis was put in ease of use and mechanical design making it both user-friendly and to withstand the tough conditions where it should be used.

ACCURACY - The heart of the SILVA ALTA is a new, highly-sensitive pressure sensor developed in Switzerland which is capable of measuring altitude variation down to an accuracy of 1 meter (3 feet).

FUNCTIONALITY - Feature-packed and intuitive. The SILVA ALTAs primary functions are found in three easy-access windows. The first window is a full-featured wristwatch that shows time of day, date and day of the week along with a 24-hour alarm. The second window displays cumulative altitude, number of downhill runs and rate of ascent or descent. The third window displays current altitude along with a 34-lap chronograph accurate to 0.1 second.

USABILITY - Programming the SILVA ALTA couldn't be simpler. The patented online Help Window, accessible from the "?" key, guides you through every step using the Words and Arrows (pat.pend) menu interface. We'll give you a manual, but you probably won't need it. **DESIGN** - From its large easy-to-view LCD to its oversized buttons, everything about the SILVA ALTA is designed to make it fully functional for skiers, climbers, multisport-competitors and mountain-bikers. An strong metal bezel protects the deep recessed lens in the harshest environments. The unique three-part Modular Concept watchband

FUNCTIONS

Programming Window - Automatically prompts you through the entire operation of the unit. Using the exclusive Words and Arrows menu interface, the Programming Window describes the current function and points to the key that needs to be pressed next. It is as easy as 1,2!

Waypoint Automatic Calibration System (WACS)

- Your SILVA ALTA will store two absolute altitude settings for two separate locations (your home and perhaps your vacation home) in memory. This allows you to instantly recalibrate your SILVA ALTA to compensate for normal changes in barometric pressure.

Set Window - The setting functions such as time, alarm, unit for altitude etc appear in a hidden window which is easily accessed at any time by pressing and holding the MENU-key more that 2 seconds.

Help Key - Simply pressing the Help Key allows you to quickly access secondary functions for any window, such as Annual Cumulative Altitude, Daily Maximum Altitude and the 34-Lap Chronograph memory.

Accurate - Detects variation in altitude down to 1 meter (3 feet).

Functionality - Feature-packed but still user-friendly!

Usability - Easy and quick to program thanks to the online Help Window.

Design - Easy to read LCD and oversized buttons.

Durable - Water protected construction with a strong metal bezel that withstands tough conditions.

Flexible - Special constructed wristband system that fits all sizes.

NIGHTGLOW - LCD lightning.

Art.no. 55300

outdoor instruments



The handheld wind instrument

The SILVA WINDWATCH® measures precisely and reliably wind speed and temperature including wind-chill.

The SILVA WINDWATCH® is the ideal portable wind gauge for all outdoor activities. It offers a wide range of functions including:

Windspeed

- Peak wind speed, either absolute or over a selected measuring period
- Average wind speed over a selected measuring period
- Current wind speed
- All standard speed units can be displayed. Simply press a button and select from mph, knots beaufort, km/h, m/s

Temperature

- Temperature range of -20°C to 55°C (-4°F to 131°F)
- Temperature display in Celsius or Fahrenheit

Wind-Chill

Subjective ambient temperature taking current or peak wind speed into account.

Configuration

In Configuration mode, the WINDWATCH® can be programmed to suit the user's individual requirements. Among others, the following parameters can be configured:

- wind speed units
- unit of time for calculation of average values
- a correction option for temperature deviations
- a correction option for temperature deviations

Additional features

- The wind sensor propeller is fully protected by a simple twist of the casing
- A standard battery will last approximately four years and is easy to replace by the user

Technical specifications:

Art.No.	55200-5700
Weight:	42g
Dimensions:	10 x 4 x 1.8 cm (3.93 x 1.57 x 0.70 in)
Casing:	High impact ABS
Waterproof:	Water-resistant
Battery type:	3V lithium battery (included)
Battery life:	approximately 2 years or 100,000 one-minute measurements
Lanyard:	included
Warranty:	2 years
Resolution of wind speed	0.1 m/s
Update	Every second
Averaging	5/10/15/20/25/30/35/40 sec
Operating temperature	-20°C - +55°C
Operating range	0.1 m/s - 40 m/s
Accuracy for wind speed	±4 %



SILVA ALBA WINDWATCH®

Measures precisely:

Altitude (meters and feet)

Barometric Pressure (hPa and inHg)

Temperature (°C and °F)

Wind Chill (°C and °F)

Wind Speed (m/s, knots, km/h, mph and beaufort)

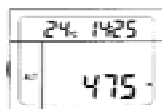
Time (hours and minutes)

The unique hand-held weather station **SILVA ALBA WINDWATCH®**, made in Switzerland, is a multi-functional instrument which is designed for outdoor people including; trekkers, paragliders, skiers, golfers, sailors, airfield ground crews, balloonists, hang-gliders, windsurfers, fire-brigades and military units. It is an essential instrument for field studies, crop spraying, engineers, crane operators, skyscraper window-cleaners, hobby meteorologists and many others.

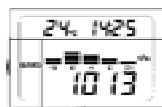
Two precision sensors/transducers:

- The *patented* highly sensitive pressure sensor fitted in the *patented* battery cover gives; *current* Barometric pressure (QNH=reduced barometric pressure at sea level), Barometric pressure over the last 16 hours (*trend*) and information about *current* Altitude
- The *patented* highly sensitive impeller gives; *Current*, *Peak* and *Average of The Peak* wind speed, and *Average* wind speed over a selected period. While not in use the wind sensor impeller is fully protected by a simple twist of the casing - a unique feature!

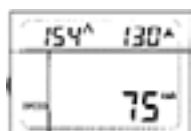
Wind chill: Ambient temperature taking average or peak wind speed into account



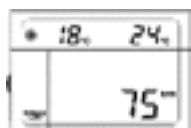
-ALTITUDE (m or ft)
-TEMP (°C or °F) & TIME
-TEMP (m/s, knots, km/h, mph, beaufort)



-BAROMETER (hPa or inHg)
-& TREND (16 hours!)
-TEMP (°C or °F) & TIME
-CURRENT WIND SPEED



-WIND SPEED
-CURRENT/PEAK/
-AVERAGE



-TEMPERATURE
-WIND CHILL, -CURRENT

SPECIFICATION:

- **Art. No.:** 55210-2700
- **Weight:** 55g
- **Dimensions:** 10x4x1.8cm
(3.93x1.57x0.70in)
- **Altitude indication:** 0-10 000m (0-30 000ft)
- **Resolution of altitude indication:** 1m (3ft)
- **Update rate of altitude indication:** Depends on user _s altitude climb/descent rate (every 1, 4 or 10 sec)
- **Barometric pressure indication:** hPa or inHg
- **Resolution of barometric pressure indication:** 1hPa/0.01inHg
- **Update rate of barometric pressure reading:** 1x per minute
- **Wind speed indication:** m/s, knots, km/h, mph, beaufort
- **Resolution of wind speed indication:** 0.1m/s
- **Update rate of wind speed indication:** Every second
- **Averaging for wind speed:** 5 to 60 sec., in steps of 5 sec.
- **Operating range, wind speed:** 0.1m/s to 40m/s (ca 140km/h)
- **Accuracy for wind speed:** +/-4% (wind speed calibration via software possible! New on the world market!)
- **Operating temperature:** -20°C to 55°C (-4°F to 131°F)
- **Accuracy for temperature:** +/-2% (+/-5°C adjustable!)
- **Resolution of temperature:** 1°C or 1°F
- **Clock:** Quartz clock gives time in hours and minutes
- **Casing:** High impact ABS
- **Waterproof:** Water-resistant IP 56
- **Battery type:** 3V lithium battery, type CR 2032 (included!)
- **Battery life:** approx. 1 year (automatic flat batt. warning!)
- **Lanyard:** Included
- **Warranty:** 2 years

Unique Automatic-Software Correction in order to give correct wind speed values, i.e. software correction for the fact that wind-energy is lost, but corrected for at low wind speed and that impellers have "improved" dynamics at high wind speeds. **This Automatic-software Correction** means that you can rely on the information on the display also at very extreme wind speeds!



adventure instruments



Para-gliding, white-water kayaking, 4WD racing, sea-kayaking and multi-sport. All are sports in which you can not afford to make major mistakes. Being off-track without a compass could definitely result in you ending up in great danger. Prepare yourself for your adventure with the **ADVENTURE SPORTS COMPASSES!** They are built for tough performance within each field of use.



A vehicle compass specially designed for 4WD and any small craft including motor boats. Built-in LED illumination of the compass rose and deviation compensator [to compensate against surrounding magnetic fields that influence the compass].

Art. No. 35718-0651



A unique combination of a steering compass and a sighting compass. When mounted in its holder it serves as a steering compass for sea-kayaks, micro-lights, boats and vehicles. Click it out and the next second you have a sighting compass for taking quick bearings in the field, in the air or at sea.

Art. No. 35014 70 UN

Art. No. 35014-1141 70 UN with battery illumination



A compass designed for kayaking. Clips on by straps, to the deck of the kayak.

Art. No. 36528-0601

There is a lot to think about before getting out in wild country. When planning your trip, the use of a good map measurer is recommended. Before getting out there it is a good idea to read the "Exploring the Nature with a map and compass" and/or learn more about navigation and route planning from the CD-ROM "The key to the Nature" (Feb/Mar 2001). During your physical training it is fun and interesting to use a pedometer that calculates the distance traveled. When on the trip you should protect your map with a good map-case. And finally - Don't forget to prepare yourself, and your adventure will become the greatest of experiences!



SILVA Pedometer with Panic Alarm
The latest product in the Pedometer range. Calculates steps, distance and calories. Built-in clock and a timer-function. It is also equipped with a 105dB panic alarm! Perfect for walking/jogging on your own.
Art. No. 56020

accessories



SILVA Pedometer STEP

This pedometer is the easiest of the range to operate. It shows only the numbers of steps taken during the walk or jog.

Large display with two reset buttons.

Art. Nr. 56012



SILVA Pedometer PLUS

This is the top model in the new range. The pedometer has four functions: step counter, distance, calories and timer.

Easy to operate due to two large buttons. The user must calibrate the pedometer with weight and stride length in order to get accurate readings of the pedometer.

Art. Nr. 56014



SILVA Pedometer PEDOMETER

This is the second model in the range. Two functions, step counter and distance.

Easy to operate due to the two large buttons. The user must calibrate the pedometer's step length in order to get accurate reading in the display.

Large display with two reset buttons.

Art. Nr. 56013



SILVA Pedometer Multi

EASY TO USE

Clip MULTI on to your waistbelt or trousers.

Thanks to the built-in pendulum the pedometer MULTI registers every step you take. By pressing the mode-button you reach the different functions in the MULTI pedometer. Just set your stride-length, weight and start walking/running - you will now be in full control of your performance!

FUNCTIONS

STEP - Counts the number of steps

DISTANCE - Calculates the travelled distance by multiplying the no. of steps taken with the stride length

FREQUENCY - Shows current frequency i.e. how many steps per minute you are pacing.

TIMER - Measures the effective walk/jog time. Stops automatically when you not move.

CALORY - Calculates the calories used based on your body weight.

SPECIFICATIONS

Size: 52x50x22 mm

Weight: 32 g.

Batteries: 2 pcs LR 1154

Art.No: 56029

accessories



SILVA Demo Compass
Perfect for schools etc. Two sizes - the small one
can be used on an overhead projector.
Art. No. 55101-360 Size:15x23 cm
Art. No. 55102-360 Size:25x37 cm

Map case Allround

There is always good to protect the map when in the outdoors. The new Allround is equipped with attachments for backpack as well as with a neck strap to make it easy to carry on yourself/your equipment.

The Allround is a foldable map case to give the map a compact size when carried in the outdoors. Inside the map case there are extra pockets for compass, pens etc.

Map pocket size is 24x26 cm and the case when folded is 28x15 cm.



SILVA Map Case 30x28

A fully transparent map case. A zipper at the bottom ensures that the map gets the best possible protection against rain and moisture.
Size: 30x28 cm
Art. No. 55048

accessories



Box with 24 compasses
Perfect for schools, Scout groups etc. 24 pcs
model RANGER 3 or FIELD 7 are included.
Art. No. 34814 24 pcs RANGER 3
Art. No. 34849 24 pcs FIELD 7



Book - Exploring The Nature With A Map And
Compass
The perfect guide to map-reading, compass use
and navigation techniques and tactics. Lots of
illustrations and examples. 100 pages. English.
Published by SISU Sport Books. ISBN Number:
91-88940-46-2
Art. No. SEN-99



CD-rom - Exploring The Nature With A Map And
Compass
Learn map-reading, compass use and
navigation techniques and tactics with this
CD-rom. You can test your skills with an
orienteering game and with quiz about the
map, the compass and navigation.
Art. No. SEN-98



SILVA Map Measurer
A traditional style map measurer with 8 scales:
1:750k, 1:500K, 1:400K, 1:200K, 1:100K, 1:50K,
1:25K, 1:15K
Art. No. 55066



SILVA Electronic Map Measurer
The electronic map measurer from SILVA is a
multi-function instrument featuring map
measurer, calculator, mini-flashlight, key-ring
and a compass.

USER POSSIBILITIES!

A planning tool for your vacation-trip, the hike, your
bicycle-trip etc. Just enter the map-scale and you
will instantly measure the distance on the map.
Perfect also for finding out how long you have
travelled.

FUNCTIONS

MAP MEASURER – Works on all maps – no
matter scale. Current scale is entered with the
calculator keyboard.

CALCULATOR – Practic calculator.

COMPASS – A small but functional compass to
give you the general directions. Perfect as well in
the city as in the outdoors.

MINI-FLASHLIGHT – Can be used to light up the
road-map whilst driving in the dark.

KEY-RING – Easy to bring at any time

SPECIFICATIONS

Size: 100x50x15 mm

Weight: 40 g

Batteries: 2 pcs LR44 (included)

Instructions in English, Swedish, French, Italian,
Spanish, German and Dutch



accessories



North pointing range Carabiner compasses

This is a new range with a range of Swedish made compasses with a contemporary design and easy to attach to your back packs, brief case etc or just simply use it as a key ring. The compasses are equipped with a carabine hook, not for climbing use, that can be used as key rings, hooks etc.

The compasses are exposed on a small POP that holds 40 compasses and that is included in the pack price.

Complete POP with stone and 40 compasses Art. Nr. 45500
Watch 40 Art. Nr. 36695
Forecaster 10 Art. Nr. 36693
Companion 9 Art. Nr. 36692
Micro 28 Art. Nr. 36694

Companion 9 Forecaster 10



Watch 40



Micro 28

